IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

ADAPTIVE SPECTRUM AND SIGNAL ALIGNMENT, INC., Plaintiff, v. CHARTER COMMUNICATIONS, INC., Defendant.	Case No. 2:24-cv-00124-JRG-RSP JURY TRIAL DEMANDED

PLAINTIFF'S REPLY CLAIM CONSTRUCTION BRIEF[1]

[1] Since ASSIA filed its opening claim construction brief (Dkt. 72) and Charter filed its responsive claim construction brief (Dkt. 77), the following relevant events have occurred that narrow the issues before this Court on claim construction:

First, the parties have met and conferred and reached an agreement with respect to the construction of "processed data" in claim 1 of the '398 patent and claim 19 of the '313 patent. ASSIA is willing to accept Charter's proposed construction of "processed data" as "collective processed data from the plurality of communication units," with the understanding that the claim recites "two or more communication units" and that the policy should be generated using data from the two or more communication units. As the claims are all open-ended, the parties understand that the use of "collective" does not preclude (1) the two or more communication units from sending additional data not used to determine the policy, nor (2) additional communication units from receiving separate policies from the server.

Second, although ASSIA disagrees with Charter's proposed constructions and maintains that no term is indefinite, the following terms are no longer at issue based on ASSIA's claim election pursuant to Dkts. 50 & 69, and any dispute is moot and should not be decided by the Court: (1) "the data further comprises determining a received signal strength indication" (Ex. B at claim 2); and (2) "WAN rate" (Ex. E at claims 3, 10, 17).

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Cases

TABLE OF ABBREVIATIONS

ASSIA or Plaintiff	Plaintiff Adaptive Spectrum and Signal Alignment, Inc.
Charter or Defendant[2]	Defendant Charter Communications, Inc.
'996 Patent	U.S. Patent No. 7,809,996
'398 Patent	U.S. Patent No. 10,848,398
'654 Patent	U.S. Patent No. 11,050,654
'108 Patent	U.S. Patent No. 11,477,108
'313 Patent	U.S. Patent No. 11,770,313
Asserted Patents	Collectively, the '996, '398, '654, '108, and '313 Patents
POSITA	Person of ordinary skill in the art
Pooley Dec.	The Declaration of Dr. Matthew Pooley Regarding the Construction of Disputed Claim Terms from U.S. Patent No. 11,770,313, U.S. Patent 10,848,398, and U.S. Patent No. 7,809,996, dated Feb. 7, 2025, Dkt No. 72-27.
Kramer Dec.	The Declaration of Dr. Richard A. Kramer Concerning Claim Construction of U.S. Patent No. 11,050,654 and U.S. Patent No. 11,477,108, dated Feb. 7, 2025, Dkt. No. 72-28.
ROCS	Retransmission Overhead Control Signal
CCR	Codeword Composition Ratio
POPR	Patent Owner Preliminary Response

[2] ASSIA agreed to dismiss its claims against defendants Charter Communications Operating, LLC, Charter Communications Holding Company, LLC, and Spectrum Management Holding Company, LLC in this case based on certain representations made by Charter. Dkt. 80 in Case No. 2:24-cv-00029-JRG-RSP.

The Court should decline to find any disputed term indefinite, reject Charter's proposed constructions, and adopt ASSIA's proposed construction.

I. "retransmission overhead control signal" ('996 Patent, Claim 20)

Charter's assertion that "retransmission overhead control signal" (ROCS) is indefinite is meritless. The term is readily understood by a POSITA. Charter's argument that the term ROCS lacks boundaries or that the specification does not define the full scope of the ROCS ignores key disclosures in the '996 patent. First, the claim language itself states that the claimed controller generates a ROCS in response to an input signal and is used by the transmitter, providing functional clarity. Ex. A ('996 Patent) at claim 1.[3] The dependent claims (such as claim 9) specify that the ROCS adjusts "at least one of the following parameters: Impulse Noise Protection (INP), and Codeword Composition Ratio (CCR)," which affect retransmission overhead further demonstrating that a POSITA would reasonably understand the term. *Id.* at 21:36-38; Pooley Dec., ¶ 64. Additionally, although the exact phrase "retransmission overhead control" does not appear in the body of the specification, the specification explicitly describes signals that fall within the scope of a ROCS, including: (i) CCR adjustment control signals that modify Codeword Composition Ratio (CCR) to optimize retransmission overhead and (ii) interleave depth control signals that modify interleaving to manage latency and error correction. Ex. A at 14:50-58; Pooley Dec., ¶¶ 62-64. These signals control parameters affecting retransmission overhead, directly aligning with ASSIA's proposed construction. Dkt. 72 at 5-6. The specification's description concerning how the ROCS functions in controlling parameters related to retransmission efficiency removes any doubt regarding its scope. *Id.* The law does not require every possible embodiment

[3] Lettered Exhibits A – AA referenced herein are attached to the Declaration of Nicole Glauser, dated Feb. 7, 2025 ("Glauser Dec."), Dkt. No. 72-1. Lettered Exhibit BB is attached to the Declaration of Nicole Glauser, dated Mar. 3, 2025 ("Glauser Dec. II"), filed concurrently herewith.

to be listed in the specification. *In re Borkowski*, 422 F.2d 904, 910 (C.C.P.A. 1970) ("[T]here is no magical relation between the number of representative examples and the breadth of the claims; . . ."). A POSITA would understand that any signal "for controlling one or more parameters that affect retransmission overhead," would satisfy the term "retransmission overhead control signal."

Charter cites to *Intell. Ventures I v. Canon Inc.*, No. CV 13-473-SLR, 2015 WL 1458035 (D. Del. Mar. 27, 2015) ("*IV I*"). In that case, the patent recited the terms "timing control signals" and "scan control signals" but entirely failed to describe any signals that performed a control function. *Id.* at 2 ("The specification does not provide further guidance as to the type or format of the signals or what the signals ultimately control."). In contrast, the '996 patent expressly discloses and discusses signals adjusting retransmission parameters, includes express examples of control signals affecting retransmission overhead, and defines related concepts such as CCR and interleaving, which directly relate to retransmission overhead. Dkt. 72 at 4-6 (and citations therein); Pooley Dec., ¶¶ 64-66. Thus, unlike in *IV I*, the '996 patent provides multiple examples of how a ROCS operates, making that term definite and clear to a POSITA.

Charter misapplies claim differentiation by assuming that claim 9's examples impose artificial limits on the scope of a ROCS, rather than acknowledging that the term ROCS can encompass at least those adjustments. The fact that claim 11 introduces an additional "control signal" does not contradict ASSIA's construction, as multiple control signals can exist within the same system while still falling within the broader concept of a ROCS. Moreover, the specification provides clear examples of ROCS-related adjustments, demonstrating that a POSITA would understand its scope with reasonable certainty. Pooley Dec. ¶¶ 60-63.

Charter attempts to manufacture ambiguity by pointing to signal 647 in Figure 6. However, the signal 647 is not the claimed ROCS because it is not coupled to the claimed transmitter, which

receives the claimed ROCS from the controller. Instead, the signal 647 is described separately in the patent as a "*receiver*-bound" control signal, which is why it is not the claimed ROCS. '996 patent at 14:58-61.

Charter's complaint about ASSIA's extrinsic evidence is also meritless. The dictionary definition of "overhead" is entirely consistent with how a POSITA would understand retransmission overhead, such as control, routing, and/or error checking data that manages retransmission efficiency. Charter misrepresents ASSIA's position by incorrectly contending that ASSIA equated "transmission overhead" with "retransmission overhead." ASSIA made no such assertion. Instead, ASSIA correctly explained that parameters affecting retransmission overhead also affect transmission overhead. Dkt. 72 at 4-6.

Charter argues that it is not improper to advance different arguments before the District Court and the PTAB, citing *Molo Design, Ltd. v. Chanel, Inc.*, No. 21-CV-01578 (VEC), 2022 WL 2135628, at *4 n.1 (S.D.N.Y. May 2, 2022). That case stands for the uncontroversial position that a party can take different positions in different legal forums. *Id.* It does not say a Court cannot consider a party's contradictory statements in claim construction. Here, Charter's IPR statements are not just different arguments—they are clear admissions that contradict its indefiniteness position. It is unquestionably relevant that Charter's own IPR expert testified that a POSITA would have understand what a ROCS is and that a signal that revises a parameter that adjusts a "forward error correction parameter on future transmissions," which is entirely within the scope of ASSIA's construction, is a "retransmission overhead control signal." Dkt. 72 at 6; Ex. G at 48-49.

II. "retransmission" ('996 Patent, Claim 20)

Charter's construction improperly narrows the term "retransmission" by requiring the retransmitted data to be identical to the originally transmitted data. However, in digital communications, retransmissions can involve modifications, including different encoding, error

correction, or partial retransmissions. Pooley Dec., ¶ 70. Charter admits a retransmission can include "***at least some*** of the same data (***or encoded from at least some of the same data***) that was part of the earlier transmission." Dkt. 77 at 7. Further, Charter concedes a retransmission can merely be "***based upon*** at least some of the same data." Dkt. 77 at 8. These admissions contradict its proposed construction, which requires a "***transmission of the same data*** that was previously transmitted." Charter's construction also ignores well-established error correction techniques that modify retransmissions for efficiency. Protocols such as adaptive coding and Forward Error Correction (FEC) often alter retransmitted data by adding redundancy, changing encoding schemes, or adjusting transmission parameters, meaning retransmission does not necessarily contain identical or even partially identical data. Pooley Dec., ¶ 70.

Charter's argument misrepresents ASSIA's position by suggesting that ASSIA equates "retransmission" with "transmission" when, in reality, ASSIA acknowledges that retransmission refers to resending data but does not require that the data be identical to the original transmission. Dkt. 72 at 7. The Pooley Declaration explicitly recognizes that retransmission overhead pertains to control signals that manage retransmission processes, including adjustments to parameters like FEC and interleaving depth. Pooley Dec., ¶ 63. Furthermore, claim differentiation does not require an artificial distinction between transmission and retransmission beyond their ordinary meanings—it ensures that each term has a distinct role, which ASSIA's construction preserves.

Lastly, Charter's reliance on *Uniloc USA, Inc. v. Samsung Elecs. Am., Inc*., No. 2:18-CV-0042-JRG-RSP, 2019 WL 11023944 (E.D. Tex. Apr. 18, 2019) is misplaced because the term being construed there included the phrase "same respective requests." *Id.* at *11. Consequently, the court's ruling included the same language in its construction. *Id.* Here, however, the term

"retransmission" does not include "same" or "same data," and nothing in the intrinsic record suggests that retransmissions must always be identical to the original transmission.

III. "periodically monitor" ('996 Patent, Claim 20)

The specification confirms that "periodically monitor" means "monitoring at fixed intervals."[4] The patent explicitly describes periodic monitoring at set time intervals (e.g., 15-minute intervals). Ex. A at 13:19–23. Furthermore, the claims use "periodically" distinctly from "repeatedly," confirming that it requires more than mere occasional or event-driven monitoring, but rather monitoring at regular, fixed intervals. Dkt. 72 at 9. Charter's arguments ignore the intrinsic evidence and should be rejected.[5]

Charter asserts that "periodically monitor" could include random or event-driven monitoring. However, the specification describes periodic monitoring as occurring at set intervals. Ex. A at 13:19–23 (The system "periodically acquires" CRC violations at "15 minute intervals"). Other portions reference monitoring over "fixed period[s]" or "given period[s] of time." *Id.* at 4:59-60, 5:60-61, 9:38-39, 11:18, 12:51. The word choice of "periodically" versus "repeatedly" indicates a distinction between monitoring at regular, fixed intervals versus general repetition. And Charter's focus on an extreme hypothetical that a fixed internal could be "five years" is misplaced, as its "plain meaning" construction would just as easily encompass its alleged unreasonably long or inconsistent monitoring periods. In any event, the specification describes monitoring at

[4] Contrary to Charter's suggestion, ASSIA has presented the exact same claim construction of the term "periodically monitor" here and before the PTAB. Glauser Dec. II, Ex. BB at 8 ("Periodically monitor means monitor at fixed intervals.").

[5] Charter's brief also does not address several of ASSIA's arguments, for example, the Federal Circuit precedent in *Apple Inc. v. Andrea Elecs. Corp.*, 949 F.3d 697, 707 (Fed. Cir. 2020) and ASSIA's arguments based on the doctrine of claim differentiation (comparing the use of "repeatedly" in claim 1 and the use of "periodically" in claim 20). Dkt. 72 at 9.

meaningful operational intervals, such as minutes or seconds, reinforcing that periodic monitoring occurs at appropriately set, fixed intervals. *See, e.g.*, Ex. A at 13:19–23.

Charter misreads the specification, arguing that because it states that the input signal can be generated in a "sampled or periodic fashion, on a random or non-random basis" that monitoring can occur on a random or non-random basis. Dkt. 77 at 9-10 (citing Ex. A at 17:20-22). First, that phrase is referring to generating an input signal—not to monitoring for transmission error values as recited in claim 20. Second, Charter mis-parses the sentence structure. The phrase explicitly distinguishes between "periodic" and merely "sampled" by listing them as separate alternatives, indicating that not all sampled signals are periodic. The phrase "sampled or periodic fashion" suggests that sampling can occur at fixed or variable intervals, whereas "periodic" implies a fixed-interval approach.

IV. "on-demand change request" ('654 patent, Claims 1, 18)

Charter's argument that the applicant defined the term "on-demand change request" is incorrect. Contrary to Charter's characterization, the facts are not an attempt to "create an ambiguity." There is no ambiguity: the sentence from the file history reply brief upon which Charter relies indisputably refers to the *entire* limitation of claim 1 because the entire limitation (not merely "on-demand change request") appears in quotation marks:

> On the contrary, the element of "sending an on-demand change request associated with at least one of throughput, or latency" is an active step, performed by the downloadable agent, to request change for at least one of throughput or latency. The element is fully enabled in the

Dkt. 72-11 at 6 (annotations added). Likewise, the applicant frames the discussion as relating to the entire limitation, including the step of "sending." *Id.* at 5. With this context, the only sensical interpretation of the applicant's statement is that the step of "sending" is "an active step, performed by the downloadable agent." Dkt. 72-11 at 6. The only part of the applicant's statement that

describes the "on-demand change request" itself is the second part of the statement, "to request change for at least one of throughput or latency." *Id.* The applicant simply did not define the term "on-demand change request," as Charter alleges.

The Federal Circuit's decision in *Sinorgchem Co., Shandong v. Int'l Trade Comm'n*, 511 F.3d 1132, 1136 (Fed. Cir. 2007) contradicts Charter's position. There, the Federal Circuit explained that "[t]he term 'controlled amount' is set off by quotation marks – often a strong indication that what follows is a definition." *Id.* at 1136. The Federal Circuit then proceeded to construe the quoted claim term based on the applicant's definition. *Id.* at 1136-1140. Here, in contrast, Charter argues that the applicant's alleged lexicography does not apply to the limitation in quotation marks but rather only to a subset of the quoted limitation. Likewise, the decision in *CVI/Beta Ventures, Inc. v. Tura LP*, 112 F.3d 1146, 1158 (Fed. Cir. 1997) did not involve attributing definitional language to a quoted claim limitation and is therefore inapt.

Charter also incorrectly argues that the crux of the applicant's argument was that the claim limitation requires an "active" request whereas the Zhao reference disclosed "passive" collection of data. Dkt. 77 at 18. Charter then argues that mapping "sending" with "active step" makes no sense because requests are "necessarily sent." However, the appeal brief section preceding the statement at issue makes clear that the applicant was distinguishing Zhao on three grounds, thereby contradicting Charter's argument:

> First, regarding the server latency data, Appellant respectfully points out that the *Zhao* explicitly discloses that the server latency measurement is done at the sever side instead of at the clients 411-414. ([0265]: An enhanced PSP module **310** at the web server **308** may take
>
> * * *
>
> Second, regarding the **requests from one or more clients**, Zhao discloses that the client requests are web request ([0237], [0291], *etc.*), or JARTA[1] request ([0079]). There is no disclosure or suggestion that the request from client is a change request associated with latency.
>
> * * *
>
> Third, *Zhao* only discloses collecting server latency data without even disclosing changing latency, no matter in the site monitor, web server, or in client's side.

Dkt. 72-11 at 6. The applicant's statement relied on by Charter summarized all three distinctions. By stating that the step of "sending an on-demand change request" is "an active step performed by the downloadable agent," the applicant was emphasizing the first distinction, which is that Zhao's disclosure of latency measurement "is done at the server side instead of at the clients" whereas the claim requires the downloadable agent to perform the step of "sending." The applicant was not stating that the "on-demand change request" itself is an active step.

Additionally, Charter's proposed construction cannot be squared with the claim language. Charter's proposed construction would result in the claim reciting "a method performed by a downloadable agent, the method comprising … sending an active step, performed by the downloadable agent, to request change." It would make no sense to claim "sending an active step."

V. "WAN performance information" ('654 patent, Claims 1, 3, 8, 16, 18, 20, 33, 36)

Contrary to Charter's characterization, the parties' dispute is twofold. The first and second portions of Charter's proposed construction improperly limit the scope of the claim term. ***First***, the scope of "WAN performance information" should not be restricted to "data related to the communication links within the WAN." Charter's cited prosecution history statement includes three examples of what is covered by the term "WAN performance information: (1) "'WAN performance information' of claim 1 refers to gathering information related to the WAN[.]"; (2) "For example, information such as physical, link, IP, and TCP layers of a communications stack."; and (3) "Such data, for example, is data specifically related to the communications links within the WAN[.]" Dkt. 72-12 at 20. Federal Circuit precedent prohibits limiting claim scope based on explicit examples. *In re Lockwood*, 679 F. App'x 1021, 1027 (Fed. Cir. 2017).

Second, importing the language "which does not include data related to transactions at the application layer related to client-server transactions that are executed" is inappropriate because

the related prosecution history statements relied on the plain meaning of the term. Specifically, the applicant explained that Zhao's "client-server transactions" measured parameters of client applications, not the network. Ex. K at 20; Ex. L at 14-15. Furthermore, Charter's assertion that round-trip latency is a client-server transaction is irrelevant and incorrect. A measure of latency (i.e., the time it takes for data to travel between a source and destination) relates to a network, not the performance of an application.

VI. "[identifying]/[identifying, at the management device,] one or more operational conditions within the WAN in a different communication layer from the one or more communication layers on the LAN" ('108 patent, Claim 1, 8, 15)

Charter incorrectly argues that, to give meaning to the anaphoric phrase "the" in "the one or more communication layers on the LAN," the WAN condition must not be identified in any layer from which LAN information was collected. Dkt. 77 at 25-26. However, because the term "one or more" is satisfied by one communication layer, the claim language requires only identifying an operating condition in a WAN communication layer that is different from one LAN communication layer for which LAN information was collected and analyzed. Thus, ASSIA's interpretation is consistent with the plain and ordinary meaning, including the anaphoric phrase.

Finjan LLC v. SonicWall, Inc., 84 F.4th 963 (Fed. Cir. 2023) is consistent with ASSIA's position. In *Finjan*, the court held that, although the term "**a** computer" could be met by one or more computers, subsequent steps performed by "**the** computer" required one of the computers to perform each step. *Id.* at 974-975. ASSIA similarly interprets the claim here as met when there is (at least) one communication layer that satisfies each limitation. The mere presence of other communication layers that do not satisfy each limitation are irrelevant to meeting the claim when the claim is written as an open claim. *See id.* In other words, as long as there is one communication layer for which LAN information is collected and analyzed to identify an operating condition on the WAN in a different layer, then the claim is satisfied irrespective of whether other LAN

information is also collected and analyzed from the same communication layer as the one on which the WAN operating condition is identified.

Baldwin Graphic Sys., Inc. v. Siebert, Inc., 512 F.3d 1338 (Fed. Cir. 2008) is also consistent with ASSIA's position. The *Baldwin* court held that "a pre-soaked fabric roll" could mean one or more "pre-soaked fabric rolls" and that subsequent recitals of "said fabric roll" likewise could be satisfied by one or more "fabric rolls": "Because the initial indefinite article ("a") carries either a singular or plural meaning, any later reference to that same claim element merely reflects the same potential plurality. . . . Because the initial phrase carries no definitive numerosity, the anaphoric phrases do not alter that meaning in the slightest." *Id.* at 1342-43. Under that reasoning, the terms "collecting LAN information from one or more communication layers on the LAN" and "in a different communication layer from **the** one or more communication layers on the LAN" can each refer to a singular layer or a plurality of layers. Thus, as long as one layer that satisfies the "collecting" limitation is different than the layer on the WAN on which the operating condition is identified, the claim is satisfied.

The specification supports ASSIA's position. It explains that "information from one layer on the WAN 205 may be used to diagnose or improve the performance on a different layer on the LAN 210, or vice versa." Ex. E at 17:5-7. By explaining that the embodiments should not be read into the claims, ASSIA is not "downplaying" the disclosures as Charter accuses (Dkt. 77 at 27) but rather is setting forth well-established Federal Circuit law. Put simply, because nothing in the specification nor the prosecution history "'express an intent to redefine the term'" or use "'words or expressions of manifest exclusion or restriction,'" the claims should be entitled to the full scope of their plain and ordinary meaning. *Apple Inc. v. Wi-LAN Inc.*, 25 F.4th 960, 967 (Fed. Cir. 2022) (quotations omitted).

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Respectfully submitted,

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a copy of the foregoing document was filed electronically in compliance with Local Rule CV-5(a). Therefore, this document was served on all counsel of record who are deemed to have consented to electronic service on March 3, 2025.

/s/ Robert Kramer